



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,903	02/12/2002	Manfred Gerresheim	0656-0253P	4305
2292	7590	02/27/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			KNABLE, GEOFFREY L	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/072,903	GERRESHEIM ET AL.	
	Examiner	Art Unit	
	Geoffrey L. Knable	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 5-11 is/are allowed.
- 6) ☒ Claim(s) 4 and 12-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/677,119.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2-12-02;6-5-02</u> | 6) <input type="checkbox"/> Other: ____ |

Art Unit: 1733

1. Claims 4 and 12-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, no antecedent has been established for "the liquefied or compressed gas".

In claim 12, line 7, the phrase "and also with..." is awkward and confusing in the context used.

In claim 15, no antecedent has been established for "the... compressed gas".

Also, claim 15 seems to conflict with claim 13 from which it depends insofar as claim 13 defines that the gas is with the sealant in the container whereas claim 15 defines that the gas is in a separate pressure bottle. The scope of these claims is therefore indefinite and confusing.

In claim 16, the reference to "resistance to heating" seems incorrect – it seems that the "to" should be deleted.

2. Note: The status of parent application 08/677119 (i.e. the patent number) should be updated at the cross-reference part at the first line of the specification. Also, in the 6-5-02 IDS, FR 671659 is crossed off as it is already cited while in the 2-12-02 IDS, the second reference under "Other Documents" has been crossed off as it is not clear what this document is or that a copy was provided.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1733

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 12, 20 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stevens (US 2,308,960).

Stevens discloses an apparatus for dispensing a tire sealant ("leak-proofing") material as well as pressurized air (e.g. page 1, col. 1, lines 5-9), the apparatus including a pressure tight container (11) for the sealant, the container having an outlet valve (18), a source of pressure (22, etc) and a source of heat (coils 13) for heating the pressure container. Such is considered to satisfy the requirements of claim 12. It is noted that the reference only explicitly describes introduction of the sealant and air to the tube rather than a "tire", the sealant and air being retained in the tube (e.g. page 2, col. 1, lines 17-

20). It however is not clear that at present anything in claim 12 defines over this insofar as a device capable of introducing sealant into a tube can be described as for introducing the material to a tire since the tube will clearly be incorporated in a tire. In any event, it further is considered that the ordinary artisan would have found it obvious to adapt the Stevens device for direct application to a tire with or without a tube for the same benefits described therein – namely the ability to dispense leak-proofing materials that are only flowable when heated.

The requirements of claim 20 are also clearly shown/obvious for reasons already described above. The added feature to the last line of claim 20 for a shut-off valve to the pressure container is also shown by Stevens – note control valve 36. As to claim 22, note pressurized gas in reservoir 22.

7. Claims 12-15 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens (US 2,308,960) taken in view of Ferris et al. (US 5,070,917) and/or FR 671659 to Blakey.

Again, it is considered that the Stevens apparatus is capable of introducing material into a tire (albeit indirectly) and thus satisfies claims 12, 20 and 22 for reasons set forth in the above paragraph. Further, it was considered an obvious alternative also as noted above to introduce material directly to a tire as noted above. These claims have nevertheless been also included within this statement of rejection as the references to Ferris et al. and FR '659 provides additional evidence of the known desire to introduce a sealing material into a tire directly, this providing additional motivation to adapt the Stevens teaching for such direct application.

Art Unit: 1733

As to claims 14 and 21, as already noted, Stevens uses a pressurized gas reservoir 22 to supply the pressure. It however is extremely well known in this art to provide the necessary pressure for sealant dispensing using an air compressor – Ferris et al. as well as FR '659 (a pump being a compressor) are exemplary – the use of such in place of a reservoir being an obvious alternative that further would be expected to provide the additional benefit of avoiding running out of gas pressure.

As to claims 13 and 15, the already noted conflict with these claims makes it difficult to determine exactly what their scope is. In any event, it is well known in this art to provide the pressure needed to introduce a sealant using a propellant typically located within the sealant chamber – e.g. col. 1 of Ferris et al. is exemplary of this well-known dispensing technique, use of such being an obvious alternative. The apparent claim 15 requirement for a separate pressurized gas source is shown by Stevens as already noted.

8. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens (US 2,308,960) taken alone or further in view of Ferris et al. (US 5,070,917) and/or FR 671659 to Blakey.

As to claim 16, Stevens suggests heating the container (11) with electrically heated coils. It is considered reasonable to expect that this reference to electrically heated coils would have been understood by the artisan as suggesting that this is requiring resistance heating. Although not described as being in a “cushion,” it would have been obvious to include such if desired, it being well known to provide resistance heating means in some form of pad or cushion (e.g. a heating pad) – such would also provide advantageous insulation.

As to claims 17-18, it is considered first that latent or two part heating means are well known and conventional per se and their application anywhere heat is desired or needed would have been obvious and lead to only the expected results. In other words, the advantages and disadvantages of such are considered to have been well understood and the artisan would have been able to select accordingly. For example, a principal advantage of such chemical heating means would have been understood to have been the avoidance of the need for electrical power – the importance of this however would have been readily and routinely determined by the ordinary artisan through routine selection depending upon the particular use/location for the dispensing means – again only the expected results would be achieved.

9. Claim 19 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Adams et al. (US 5,834,534).

Adams et al. discloses an apparatus for sealing tires including a pressurized aerosol can having an outlet valve and further a propellant that can include sulfur hexafluoride (note col. 2, lines 32-53 and col. 5, lines 30-36). As to the “outlet quantity restrictor,” it is not seen why this would not read on the valve for the container since it would be used to restrict the outlet quantity. In any event, if containers larger than the amount required for one tire were to be used, it further would have been obvious to provide means to meter the amount of material for the readily apparent advantages, it being of course well known in dispensing in general to provide automatic means to dispense desired quantities.

10. Claims 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferris et al. (US 5,070,917).

Ferris et al. discloses an apparatus for introducing sealant and air into a tire including a sealed container (10) for sealant as well as a valved inlets and outlets (e.g. note check valve 54 as well as rings 108 and 130 functioning as check valves – col. 9, lines 11+) and a pressure source in the form of an air compressor (20).

11. Claims 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferris et al. (US 5,070,917) as applied to claims 20 and 21 above, and further in view of Lee et al. (US 4,969,493 – for claim 22 only) or Biever (US 3,727,651 – for both claims 12 and 22):

As to claim 22, although Ferris et al. suggests an air compressor to supply the pressurized air, use of compressed or liquefied gas sources for supplying pressurized air to tires is well known in this art and would have been obvious alternatives – note for example Lee et al. and Biever.

As to claim 12, Ferris et al. suggests the basic device defined in claim 12 except there is no heat source. As noted above, in light of Biever, it is considered to have been obvious to provide a liquefied gas pressure source for the necessary pressurized gas. Further, Biever indicates that when using such liquefied gas sources, it is desirable to provide a heat exchanger to heat the pressurized gas prior to introduction to the tire to avoid tire damage as well as overpressure – e.g. note col. 3, lines 13-61. To include such would have been obvious and would satisfy the claim 12 requirement for heating the pressure source.

Art Unit: 1733

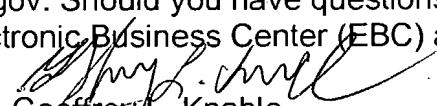
12. Insofar as claims 1-11 and 23 expressly require the presence of natural rubber latex and an adhesive resin compatible with the natural rubber latex as part of the claimed apparatus for sealing punctures in and pumping up of a tire, these claims have not been rejected on prior art as it is not considered that the closest prior art would teach or suggest an apparatus for sealing of punctures in and pumping up of a tire as claimed that further includes such a sealing material – reference is also made to the parent application (08/677119), and particularly the comments made in paper #30 upon reconsideration of the scope and content of the prior art and in light of appellants' brief filed 1-24-2002 (paper #29), these comments being incorporated herein by reference.

Thus, claims 1-3 and 5-11 are allowable while claims 4 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
February 21, 2004